



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

rock, but was surprised to find no coral excepting small fragments growing on the solid rock, which is chiefly gneiss and sandstone. As most of the charts say "*coral rock*," I have sent a few of the soundings for your inspection, and you will see by them that what has here been called coral is the coating of a solid rock formed by the deposit of the sea-water, mixed with coralline substances and what a sailor generally calls "barnacles."

'My meridian distance of the Abrolhos rocks from *Bahia*, their latitude, and their size, agree precisely with those given in the French survey. But between *Bahia* and Rio de Janeiro, and consequently between the Abrolhos and Rio de Janeiro, there exists a difference of from four to five miles between us, this being the only point on which I have found any such difference either on this or on the *Beagle's* former voyage.'

Having made both passages, I venture to observe, that going within the Abrolhos certainly shortens that between Rio and *Bahia* very much; but yet I should not recommend it to any vessel unless she has reason to make unusual haste. The soundings are very irregular, varying suddenly from twenty to six fathoms; and there are both reefs and currents.

VIII.—*Communication between the Ganges and Hooghly, &c.* Communicated by Lieut. J. H. Johnston, R.N.

THE Nuddeah rivers, which connect the Ganges with the Hooghly, are, during eight months in the year, so extremely shallow as not to admit of a passage being effected by them between the rivers; and the water communication between Calcutta and the upper country is consequently maintained during that time by the Sunderbund passages, at a great expense of time and labour. A plan has, therefore, been lately proposed by Major Forbes, of the Bengal Engineers, and is now under consideration in India, for constructing a canal, which, branching off from the Ganges at Rajamahl, shall join the Hooghly at Mirzapore, near Kulna. And the object being approved by the Governor-General, the requisite surveys and estimates are now making to ascertain the expediency, otherwise, of carrying the scheme into effect.

The great difficulties arise—1. from the difference of level (sixty feet) between the Ganges and Hooghly at the points in question, which, with the friable nature of the intervening country, makes an open cut inexpedient:—2. from the difference in the level of the Ganges at different seasons, amounting to not less than thirty feet;—and, 3. from the number of hill-streams which intersect the line. To overcome them it is proposed to cut the bed of the canal at Rajamahl six feet below the lowest level of the river, providing

it, at the same time, with locks, rising, when required, to its greatest height; thence to skirt the Rajamahl hills, on sound good ground, for eighty miles, crossing the hill streams, already noticed, on aqueducts; and, finally, to lock down to the Hooghly between two of them, the Adji and Damooda, coming out, as stated, at Mirzapore. This line, besides being three hundred miles shorter than the present passage, would come within a little distance of the coal-mines, now worked to the extent of three or four hundred thousand maunds (bushels), and cross a country abounding in rich iron ore, limestone, &c. And though the expense is roughly estimated at fifty lacks of rupees (500,000*l.*), the return, with moderate tolls, would, it is thought, be not less than 10 per cent. on this capital.

The work would take some years to execute, besides the delay which must yet intervene before the plan is matured; but, in the meantime, taking advantage of the opportunity afforded by the mention of coal on the projected line, the following facts may be acceptable. Coal is extensively diffused in Bengal, Sylhet, Burmah, and Arracan; but has only been worked, as yet, on a considerable scale, at Beerboom, on the Damooda river, above alluded to, whence it is delivered in Calcutta at eightpence to ninepence a bushel. The great expense, however, of its conveyance from this to the upper provinces, has lately induced the governor-general to order seams to be opened at Hurrah and Sikree, on the banks of the Ganges, about half-way between Calcutta and Benares, by the water route; and a recent report received from Captain Tanner, who is charged with the works there, of the progress made, is subjoined.* In strength, Indian coal, as hitherto extracted, may be considered from a fourth to a fifth inferior to the best Newcastle. It burns freely, but does not answer

* ‘*Bhangulpore (near the Hurrah Colliery), March 4, 1831.*—As our seam dips the quality improves, and the supply promises to be most abundant. It was at first slaty in fracture, but is now conchoidal; ignites easily; and as fuel is all that is required. I consider it even better than the Rajamahl coals.

‘Some days ago I had about ten seers (20 lbs.) fresh from the mine, broken into small pieces, and built up in the form of a pyramid, so as to admit of a circulation of air; having fired which, I remarked, that as the heat increased a brownish liquid exuded, the flame was blue for the first half hour, then for half an hour bright red, and afterwards a glowing redness was diffused throughout the pile for two hours. The smoke was first black, then white; the odour was stronger than was given out by the sort of coal first extracted; and the whole was consumed in eight hours, the pieces retaining their shape, but white and soft.

‘The next day I had a similar quantity dried in the sun; from which, when afterwards burnt, I observed no liquor exude; and the ashes left were harder, but not what could be called a cinder. In other respects the results were the same.

‘Our adit is now twenty feet wide and sixty long. I observe that the bed is perpendicularly divided by three seams the whole length, which keeps the sides even; while the transverse seams enable the workmen to extract some pieces of two to three maunds each. The fresh fracture is a dark grey colour, but blackens on exposure to the atmosphere. It feels slightly greasy at first, but roughens as it changes

for coking or smithy purposes ; though being as yet worked only near the surface, its quality may improve as the shafts descend.

IX.—*Recent Information from Australia.* From communications made to the Royal Geographical Society.

IN June last the following extract of a letter from Lieut.-Colonel Dumaresq (New South Wales) was communicated to the Royal Geographical Society by Mr. Hay, V. P.

‘ I must now put you in possession of a report which has been made by a man named Barber, a runaway convict, who has lived for these last five years with the aboriginal natives of the interior.

‘ He was recently captured by a detachment of the mounted police, and states that he has twice traversed New Holland in a north-westerly direction, and has reached the northern coast by following the course of a river which rises towards the western extremity of the chain of mountains by which Liverpool plain is bounded, and by which it is separated from the valleys of the Goulburn and Hunter rivers. He describes this river as running in a broad and deep channel, for many hundred miles without any impediment to its navigation, and as finally emptying itself into a lake of great extent, whose junction with the ocean he could not see across. The natives of the coast informed him that strangers visit it for the purpose of procuring a scented wood, which they float away in great quantities. These strangers are held in great terror, and are said to be armed with two spears, “ a long and a short one,” the latter of which alone is thrown (bows and arrows, we may conclude). They arrive in canoes made of wood, and not formed of bark as the natives’ canoes are,—are dressed in a kind of shirt reaching to the elbows, and wear trowsers which do not descend below the knee. (Malays.)

‘ Barber further saw the stumps of many trees which had been cut with an axe, as also a man who had been wounded with the short spear alluded to, and which the natives describe as being thrown with great force and precision. His story, on the whole, is very circumstantial ; and Major Mitchell (the surveyor-general)

colour. The fragments sliding over each other have a slightly metallic sound ; and wherever the tools strike the lustre is glistening.

‘ I shall continue to note any changes, but refrain at present from surmising the probable result. As the sinking goes on, the true nature of this immense bed of coal will be developed effectually.

‘ I have, &c.

‘ H. TANNER, Captain.’